

Naintsch Mineralwerke GmbH - A - 8045 Graz - Austria - Tel. +43 (0)316) 653550 - Fax +43 (0)316) 603665



## DATA SHEET

# NAINTSCH A-3

Naintsch A-3 is an extremely pure, very white talc. With its high aspect ratio and ultrafine grind, it improves nucleation in crystalline polymers.

### WHITENESS

Minolta CR-300  
Illuminant D65/2°

Y ..... 93.0  
CIE L\* ..... 97.2  
a\* ..... 0.0  
b\* ..... 0.8

### PARTICLE SIZE DISTRIBUTION

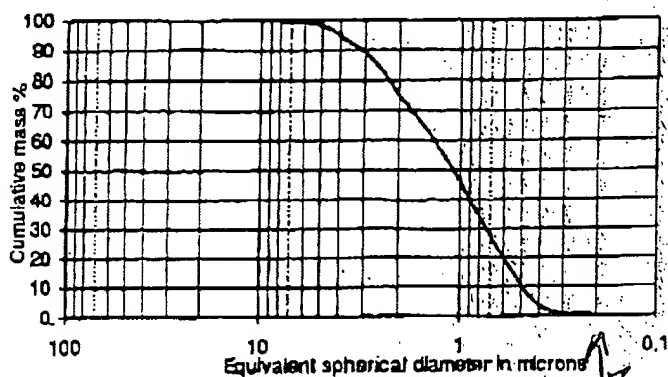
Screen residue  
Alpine Airjet

> 15 µm ..... 0.03 %

Sedigraph 5100

→ d50 ..... 1.2 µm  
← d95 ..... 4.4 µm

### Sedimentation



### SPECIFIC SURFACE AREA

Blaine 10  
DIN 66131/2

Blaine ..... 50000  
BET ..... 14.5 m²/g

### CHEMICAL ANALYSIS

Colorimetry  
AAS

SiO<sub>2</sub> ..... 62.0 %  
MgO ..... 31.5 %  
Al<sub>2</sub>O<sub>3</sub> ..... 0.4 %  
Fe<sub>2</sub>O<sub>3</sub> ..... 0.2 %  
CaO ..... 0.3 %  
..... 6.0 %  
..... 0.9 %

Loss on ignition 1050 °C  
625 °C

### PHYSICAL PROPERTIES

ISO 787/10  
ISO 787/11  
DIN 52110  
Mohs' scale  
ISO 787/2

Specific gravity ..... 2.78 g/cm³  
Tapped bulk density ..... 0.20 g/cm³  
Loose bulk density ..... 0.17 g/cm³  
Hardness ..... 1  
Moisture content (105 °C) ..... ≤ 0.4 %

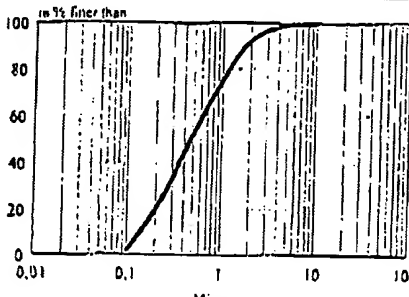

A-30.doc (nsl 543/ Wei/R9) 9/88K

These data are presented in good faith as typical values for this product. They are not to be considered as binding.

GROUP

Producer: IMI FABI S.p.A.

**HiTalc Premium HTP ultra 5c**

<b>Mineralogy</b>		Thermogravimetric and X-ray Diffraction	
<b>Laminar</b>	Talc	99-100	%
	Chlorite	traces	
<b>Granular</b>	Dolomite	< 1	%
	Quartz	< 0,5	%
<b>Fibrous</b>	Asbestos	not detected	
	Tremolite	not detected	
<b>Brightness</b>		97	CIE L
		0,10	a*
		0,40	b*
		93	Y
<b>Particle Size Distribution</b> Sedigraph 5100			
	Median Diameter	0,50	µm
	Hegman Grindometer Fineness	7,5	
	Specific Gravity	2,8	g/cm <sup>3</sup>
	Bulk density	0,90	g/cm <sup>3</sup>
	Specific Surface BET N <sub>2</sub>	13	m <sup>2</sup> /g
<b>Chemical Analysis</b>			
Loss on ignition	SiO <sub>2</sub>	61,5	%
	MgO	31	%
	CaO	0,5	%
	Fe <sub>2</sub> O <sub>3</sub>	0,7	%
	Al <sub>2</sub> O <sub>3</sub>	0,4	%
	1050 °C	5,7	%
Hardness	Talc	1	Mohs
Abrasivity	Einlehner AT 1000	2	mg
Refractive Index		1,6	
pH	10 % aqueous solution	9	
Moisture	105 °C	0,5	max. %

The data presented herein are believed to be typical for production. They are based on most recent testing. This information should be used as a guide. No warranty, expressed or implied, is made as to suitability. The user is solely responsible for the use of this product. 12/99

Marketing: HiHolding GmbH

A-8045 Graz, Austria, P.B. 60

Nepomukgasse 21

☎ +43-316-682072 fax: +43 316-6920724

# Talk Naintsch ST

## Mineralogische Daten

## Chemische Daten

## Physikalische Daten

ST-10 : 0.62 DM / kg  
 ST-60 : 0.40 DM / kg  
 ST-7 : Sedimentverfestigung  
 Produkt

Talk Naintsch ST ist ein natürliches Gemenge von Magnesiumsilikathydrat und Magnesiumaluminiumsilikathydrat mit ausgeprägter Plättchenstruktur (hohes Aspektverhältnis).

### Talk/Chlorit

### Chemische Analyse (%)

SiO <sub>2</sub>	48
MgO	30
Al <sub>2</sub> O <sub>3</sub>	10,5
Fe <sub>2</sub> O <sub>3</sub>	2
Glühverlust (1050 °C, 1h)	9

Säurelöslichkeit (%) (HCl 1%, 20 °C, 20 min.) 2

pH-Wert DIN ISO 787/9 9

### Härte (Mohs)

Talk	1
Chlorit	1-2

Dichte (kg/dm<sup>3</sup>) DIN ISO 787/10 2,8

Feuchte ab Werk (%) DIN ISO 787/2 (max.) 0,5

### Heilbezugswert DIN 5033

FMX	68
FMY	68
FMZ	65

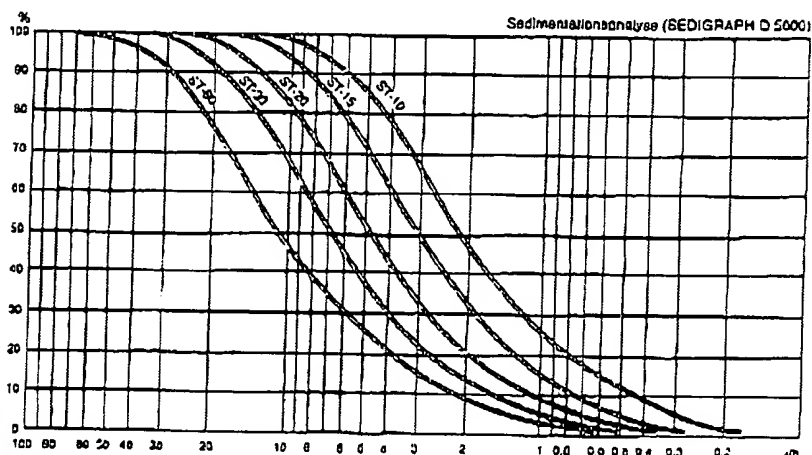


Foto: Rasterelektronenmikroskop (1 cm × 1,4 µm)

Diese technischen Angaben stellen mit Sorgfalt ermittelte Durchschnittswerte der Produktion dar. Sie entbinden nicht von einer Eingangskontrolle und sind keine Garantiewerte. Verfahrenstechnisch bedingte Änderungen in der Produktion behalten wir uns vor. Mit dieser Ausgabe verlieren ältere Datenblätter ihre Gültigkeit.

ISO 9002 APPROVED

### Siebanalyse DIN 66165

Rückstand in % auf

60 µm	2,0
30 µm	2,0
20 µm	2,0
15 µm	2,0
10 µm	2,0

### Stampfdichte (kg/dm<sup>3</sup>)

DIN ISO 787/11

Schüttichte (kg/dm<sup>3</sup>)

DIN 52110

Ölzahl (g/100 g)

DIN ISO 787/5

Spez. Oberfläche

Blaine 10

	ST-60	ST-30	ST-20	ST-15	ST-10
Rückstand in % auf	2,0	2,0	2,0	2,0	2,0
Stampfdichte (kg/dm <sup>3</sup> )	0,87	0,77	0,55	0,47	0,38
Schüttichte (kg/dm <sup>3</sup> )	0,60	0,53	0,41	0,40	0,36
Ölzahl (g/100 g)	31	35	38	41	44
Spez. Oberfläche	10000	13800	21000	25500	29000

**Luxenac**  
**NAINTSCH**

NAINTSCH MINERALWERKE GmbH  
 A-8045 Grätz, Statteggerstrasse 80  
 Tel.: 0314 400 30 40 Fax: 0314 40 90 44

# Talk Naintsch A

Talk Naintsch A ist ein Magnesiumsilikathydrat mit ausgeprägter Plättchenstruktur (hohes Aspektverhältnis).

## Mineralogische Daten

### Chemische Daten

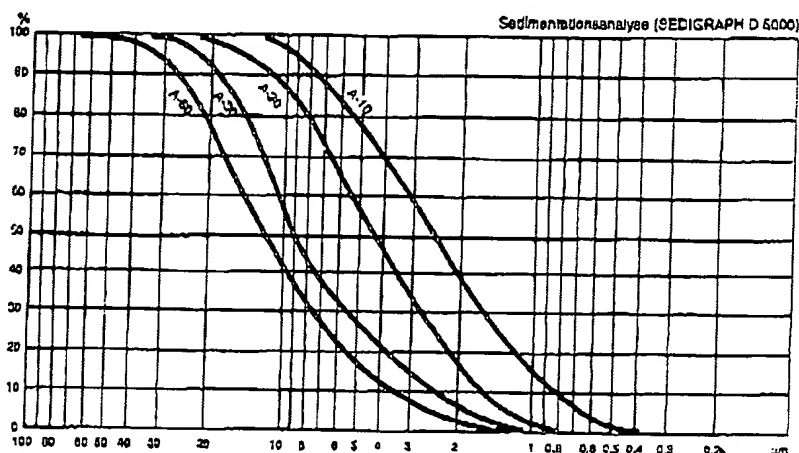
AS: 1.83 DM/L<sub>y</sub>  
 A60: 1.10 DM/L<sub>y</sub>  
 A3: 2.30 DM/L<sub>y</sub>  
 A30: 1.20 DM/L<sub>y</sub>

### Physikalische Daten

### Talk

#### Chemische Analyse (%)

SiO <sub>2</sub>	60
MgO	31,5
Al <sub>2</sub> O <sub>3</sub>	1
Fe <sub>2</sub> O <sub>3</sub>	0,8
CaO	0,6
Glühverlust (1050 °C, 1 h)	5,5
Säurelöslichkeit (%) (HCl 1 %, 20 °C, 20 min)	3
pH-Wert DIN ISO 787/9	9,3
Härte (Mohs)	1
Dichte (kg/dm <sup>3</sup> ) DIN ISO 787/10	2,8
Feuchte ab Werk (%) DIN ISO 787/2	0,5



#### Siebanalyse DIN 66165

Rückstand in % auf 60 µm  
 30 µm  
 20 µm  
 10 µm

#### Hellbezugswert

DIN 5033 FMX

FMY

FMZ

Stampfdichte (kg/dm<sup>3</sup>)

DIN ISO 787/11

Schüttdichte (kg/dm<sup>3</sup>)

DIN 52110

Ölzahl (g/100 g)

DIN ISO 787/5

Spez. Oberfläche

Blaine 10

A-80	A-30	A-20	A-10
2,0			
	2,0		
		2,0	
			2,0
92	92	93	93
92	92	93	93
91	91	92	92
0,78	0,69	0,33	0,27
0,49	0,44	0,25	0,21
37	39	51	53
10000	12500	24000	33000



Foto: Rasterelektronenmikroskop (1 cm = 1,4 µm)

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ISO 9002 APPROVED

**LUZERNAL**  
**NAINTSCH**

NAINTSCH MINERALWERKE GmbH  
A-8045 Graz, Stalleggerstrasse 60  
Tel.: 0316 / 89 38 50, Fax: 0316 / 89 38 65



# Specialty MINERALS

## MICROTUFF® AG appearance grade talcs

*steak-cooked*

MICROTUFF® talc products are produced in Barretts, Montana from an extensive deposit of high quality talc ore. These products are characterized by a platy shape, closely controlled particle size distribution, and no detectable quantities of any of the asbestiform minerals. This family includes a series of five products ranging from 6 microns top size to 44 microns top size.

They are specifically designed for polymer applications where color of the finished part is of critical importance. In addition to superior color, polyolefin compounds filled with MICROTUFF® AG talc products have enhanced long term heat stability when compared to compounds filled with unmodified talcs.

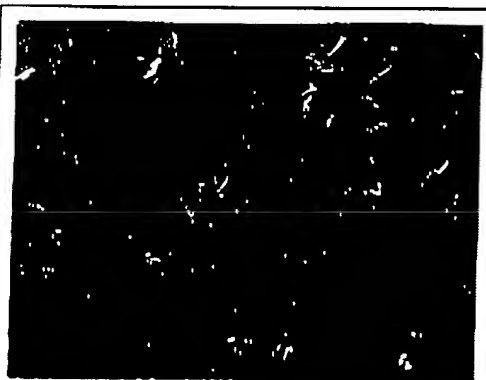
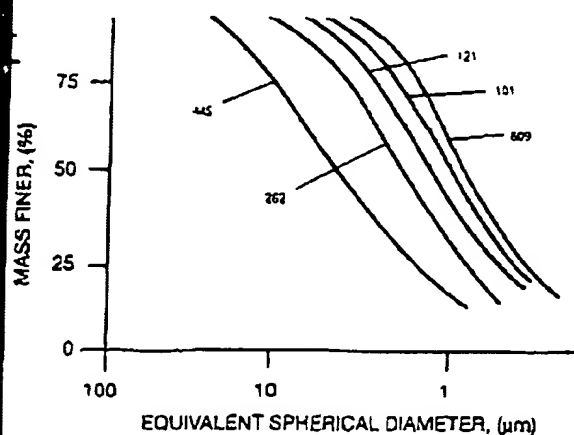
Barretts Minerals Inc. Technical Data

MICROTUFF® AG Talc

### Physical Properties (typical)

MICROTUFF® AG	609	101	121	262	445
Median Particle Size (microns)	0.8	1.0	1.3	2.3	5.5
Specific Gravity	2.6	2.8	2.8	2.8	2.8
Dry Brightness (Hunter Y, 40 value)	90	90	90	90	87
Bulk Density (pounds/cu ft)	6.4	6.4	9.5	12.5	21
(grams/cc)	0.10	0.10	0.15	0.20	0.34
Tap Density (pounds/cu ft)	20	22	22.5	34	49
(grams/cc)	0.32	0.35	0.36	0.54	0.78
Retention 325 Mesh, %	nil	nil	nil	trace	0.6
pH Value	8.8	8.8	8.8	8.8	8.8

### CUMULATIVE MASS % FINER vs. DIAMETER



### Chemical Composition (typical)

Silicon Dioxide	SiO <sub>2</sub>	60%
Magnesium Oxide	MgO	33%
Aluminum Oxide	Al <sub>2</sub> O <sub>3</sub>	1.0%
Iron As	Fe <sub>2</sub> O <sub>3</sub>	1.2%
Loss on Ignition	L.O.I.	5.5%
Moisture (% weight loss @ 110° C)	H <sub>2</sub> O	<0.5%

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Lakewood, CA (800) 255-5832 • FAX (582) 497-8771

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TALC 10-97



Your Technology Resource™

# MICROTALC™ talc

## Technical Grade Talcs

Specialty Minerals Inc. (SMI) MICROTALC™ technical grade talc products are produced by Barretts Minerals Inc., from an extensive deposit of high quality Montana talc ore. SMI's MICROTALC™ talc (Magnesium Silicate) products are designed for use in a number of applications including: thermoset & thermoplastic polymers, adhesives & sealants, caulks, putties & spackles and other numerous industrial applications. MICROTALC™ talc products are cost effective, chemically inert, platy, high brightness talcs used for reinforcement, improved weatherability and general improvements in mechanical properties.

This versatile line of high brightness, platy talcs is available in a full range of particle sizes to satisfy the requirements of most applications.

**Barretts Minerals Inc.**  
A subsidiary of Specialty Minerals Inc.

Technical Data

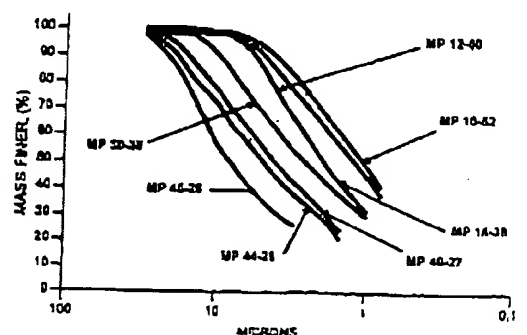
▼ MICROTALC® Technical Grade Talcs

Typical Properties	MICROTALC™ Technical Grade Talcs						
	MP 10-52	MP 12-50	MP 15-38	MP 30-36	MP 40-27	MP 44-26	MP 45-26
Median Particle Size (microns)	1.0	1.2	2.0	3.0	4.0	5.0	8.0
Winnman Fineness (minimum)	6.5	6.0	5.75	5.0	3.75	3.0	2.0
Retention, 325 Mesh, %	-	-	-	-	-	0.6	0.9
Dry Brightness (Hunter Y, Rd Value)	89	88.5	89	87	88	87	85
Oil Absorption	55	53	42	34	30	28	26
Bulk Density (pounds/ft³)	6.4	7.5	12	16	20.5	21	23
(grams/cc)	0.10	0.12	0.19	0.26	0.33	0.34	0.37
Tap Density (pounds/ft³)	22	22.8	33	34.7	46	49	51
(grams/cc)	0.35	0.36	0.53	0.56	0.74	0.79	0.82
pH	8.8	8.8	8.8	8.8	8.8	8.8	8.8
Specific Gravity	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Bulking Value	23.3	23.3	23.3	23.3	23.3	23.3	23.3
Wt/solid gal. (lbs.)							

### Chemical Composition (typical)

Silicon Dioxide	SiO <sub>2</sub>	61%
Magnesium Oxide	MgO	31%
Calcium Oxide	CaO	<0.5%
Aluminum Oxide	Al <sub>2</sub> O <sub>3</sub>	1%
Iron As	Fe <sub>2</sub> O <sub>3</sub>	<1.3%
Loss on Ignition	L.O.I.	5.5%
Moisture (% weight loss @ 110° C)	H <sub>2</sub> O	<0.5%

Particle Size Distribution  
CUMULATIVE MASS % FINER vs. DIAMETER



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